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CHOOSE THE RIGHT STUFF

a meal planning manual for food service directors

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Brought to you by:
The Friends of School Food Service
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Choose the Right Stuff

As food service professionals, we want to do everything we can to see that the children we feed in school (and our own children at home!) grow up to be healthy adults. By following the Dietary Guidelines for Americans, you can choose the right stuff and give children a healthy start.

Medical studies show that there is a link between diet and the development of conditions such as heart disease, stroke, high blood pressure, cancer, diabetes, obesity, and osteoporosis. Sensible eating habits can help prevent or control these diseases especially if started early in life. To help improve the diets of healthy Americans over the age of two, the federal government developed the Dietary Guidelines for Americans.

Many schools have successfully followed these guidelines to serve low cost, nutritious and attractive meals that children like. This manual will give you some quick and easy tips so that you can do it too!

Dietary Guidelines for Americans

1. Eat a variety of foods daily.
2. Maintain a healthy weight.
3. Choose a diet low in fat, saturated fat, and cholesterol.
4. Choose a diet with plenty of vegetables, fruits and grain products.
5. Use sugars in moderation.
6. Use salt and sodium in moderation.
7. If you drink alcohol, do so in moderation.

The Dietary Guidelines do not include exact amounts. That is why groups such as the American Heart Association and the Food and Nutrition Board of the National Research Council/National Academy of Sciences have attached values to these recommendations for healthy Americans over two years old. That makes it easier for meal planners and consumers to make healthy choices.

American Heart Association
Dietary Recommendations

These suggestions are for all healthy children two years and older.

♥ **Diet should be nutritionally adequate, consisting of a variety of foods.**

♥ **Caloric intake should be based on growth rate, activity level, and amount of body fat to maintain desirable body weight.**

The Food and Nutrition Board of the National Research Council recommends that school age children consume between 2000 and 3000 calories per day. The school lunch should contain about 715 calories, on the average.

♥ **Fat intake should be about 30% of total calories.**

To meet this recommendation the 715 calorie lunch should have about 24 grams of fat. You can see the fat in most meats and in foods like oil, butter, margarine, mayonnaise, and shortening. But there are other fats you can't see, like fats in dairy products and prepared foods. In the back of this booklet you will find lists to make it easy for you to count grams of fat.

All children need some fat in their diet however, too much fat may contribute to obesity and/or high cholesterol levels. So we should all avoid serving too many high fat items.

♥ **Cholesterol intake should be about 100 miligrams per 1,000 calories, not to exceed 300 miligrams daily.**

Cholesterol is found only in foods of animal origin such as dairy and meat products like eggs, liver, and butter.

Remember, if the label says "cholesterol-free," the food can still be high in other types of fat, including saturated fat!

♥ **Protein intake should be about 15% of total calories and should come from a variety of sources.**

Choose lean meat, fish, low fat dairy milks and cheeses, beans, and peas are good sources of protein.

A school lunch that has 24 grams of fat, and follows the U.S.D.A. meal pattern, will meet the American Heart Association recommendations for protein and fat.

♥ **Carbohydrate intake should be about 55% of total calories.**

Carbohydrate calories should come from foods like potatoes, rice, and whole grain breads, cereals, and pastas. These provide necessary vitamins and minerals, and plenty of fiber, or roughage. People who eat a high fiber diet are at less risk of getting certain types of cancer.

A school lunch that has 24 grams of fat, and follows the meal pattern, will meet the American Heart Association Reccemendationsfor carbohydrate and fat.

♥ **Limit sodium (or salt) intake.**

Too much salt may lead to hypertension (or high blood pressure) in some people. Most Americans eat too much salt. Limit most highly processed foods and sodium containing condiments. Do not add salt at the table.

The Right Menus

The products and the recipes that we select, and the food preparation methods we use affect the amount of fat in a meal. Often, a small change in just one of these can mean a healthier, lower fat meal. On the next few pages, we will show you some examples of how this can be done. When working on your own menus, look for fat content listed under: 1) "nutrients per serving" in the U.S.D.A. recipes; 2) "TOT FAT" column on left side of page titled "nutrient content of one serving" for processed commodity products; 3) "fat grams" in the new Massachusetts School Food Service publication for open market chicken nuggets and patties, and pizza.

Notice what a difference one small change makes in the fat content of a meal by looking at the "percent calories from fat" at the bottom of each menu.

EXAMPLE: THE RIGHT PRODUCT

Less favorable meal

Item	Fat (grams)	Calories	Contribution	Price
Cheese Pizza **Tony's # 63550-EAD 4.77 oz.**	19	391	2 meat 2 bread 1/8 c. veg.	
1/2 cup Tossed Salad	0	12	1/2 c. veg.	
1 Tbsp. Italian Dressing	7	70		
1/2 Pint 1% Chocolate Milk	3	160	1/2 pint milk	
Petite Banana	0	81	1/2 cup fruit	
Total	29	714		

Percent calories from fat: 37%

More favorable meal

Item	Fat (grams)	Calories	Contribution	Price
Cheese Pizza **Tony's # 63501-EAA 5.10 oz.**	12	364	2 meat 2 bread 1/8 c. veg.	
1/2 Cup Tossed Salad	0	12	1/2 c. veg.	
1 Tbsp. Italian Dressing	7	70		
1/2 pint 1% Chocolate Milk	3	160	1/2 pint milk	
Petite Banana	0	81	1/2 c. fruit	
Total	22	687		

Percent calories from fat: 29%

EXAMPLE: THE RIGHT PRODUCT

Less favorable meal

Item	Fat (grams)	Calories	Contribution	Price
Chicken Nuggets **Holly Farms #415 5 nuggets** B-B-Q Sauce	17 0	255 60	3/4 bread 2 meat	
1/2 c. Oven Baked Fries	6	150	1/2 c. veg.	
1/4 c. Sliced Cucumber	0	4	1/4 c. veg.	
Dinner Roll	2	85	1 bread	
Fresh Apple 1/2 pint 2% Milk	0 5	81 120	1/2 cup fruit 1/2 pint milk	
Total	**30**	755		

Percent calories from fat: **36%**

More favorable meal

Item	Fat (grams)	Calories	Contribution	Price
Chicken Nuggets **Holly Farms #400 5 nuggets** B-B-Q Sauce	10 0	225 60	1 1/4 bread 2 meat	
1/2 c. Oven Baked Fries	6	150	1/2 c. veg.	
1/4 c. Sliced Cucumber	0	4	1/4 c. veg.	
Dinner Roll	2	85	1 bread	
Fresh Apple 1/2 pint 2% Milk	0 5	81 120	1/2 c. veg. 1/2 pint milk	
Total	**23**	725		

Percent calories from fat: **29%**

EXAMPLE: THE RIGHT RECIPE

Less favorable meal

Item	Fat (grams)	Calories	Contribution	Price
Oven Fried Chicken (Old USDA Recipe)	17	247	2 meat	
1/4 c. Orange Glazed Sweet Potatoes	2	102	1/4 c. veg.	
1/4 c. Green Beans	0	9	1/4 c. veg.	
1/2 pint 2% Milk	5	120	1/2 pint milk	
Banana Bread Orange-Pineapple Gelatin	4 0	149 89	1 bread 1/2 c. fruit	
Total	**28**	716		

Percent calories from fat: 35%

More favorable meal

Item	Fat (grams)	Calories	Contribution	Price
Oven Fried Chicken (New USDA Recipe)	14	240	2 meat	
1/4 c. Orange Glazed Sweet Potatoes	2	102	1/4 c. veg.	
1/4 c. Green Beans	0	9	1/4 c. veg.	
1/2 pint 2% Milk	5	120	1/2 pint milk	
Banana Bread Orange-Pineapple Gelatin	4 0	149 89	1 bread 1/2 c. fruit	
Total	**25**	709		

Percent calories from fat: 32%

EXAMPLE: THE RIGHT PREPARATION

Less favorable meal

Item	Fat (grams)	Calories	Contribution	Price
Hamburger Patty on Bun with Lettuce, Onion & Tomato	13 1 0	193 110 6	2 meat 1 1/2 bread 1/4 c. veg..	
1/2 c. Deep Fried French Fries	**12**	228	1/2 c. veg.	
1/2 c. Peaches	0	64	1/2 c. fruit	
1/2 pint 1% Chocolate Milk	3	160	1/2 pint milk	
2 Tbs. Catsup	0	32		
Total	**29**	793		

Percent calories from fat: **33%**

More favorable meal

Item	Fat (grams)	Calories	Contribution	Price
Hamburger Patty on Bun with Lettuce, Onion & Tomato	13 1 0	193 110 6	2 meat 1 1/2 bread 1/4 c. veg.	
1/2 c. Oven Baked Fries	**6**	150	1/2 c. veg.	
1/2 c. Peaches	0	64	1/2 c. fruit	
1/2 pint 1% Cocolate Milk	3	160	1/2 pint milk	
2 Tbs. Catsup	0	32		
Total	**23**	715		

Percent calories from fat: **29%**

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Item	Fat(grams)	Calories	Contribution	Price

Total

Percent calories from fat:

Item	Fat(grams)	Calories	Contribution	Price

Total

Percent calories from fat:

MEAT AND MEAT ALTERNATES

The calorie and fat content of meat and meat alternate products varies. Each commodity is listed with the calories and fat content found in a 2 ounce or equivalent serving

	Serving Size	Cal.	Fat Gms.
Almonds, shelled	2 ounces	350	30
American Cheese, processed	2 ounces	212	18
Beef, canned	2 ounces	130	8
Beef, roasted	2 ounces	150	17
Blackeye peas or beans	1/2 cup	100	0
Catfish	2 ounces	60	2
Cheddar Cheese	2 ounces	230	19
Chicken, canned	2 ounces	100	5
Chicken, cut-up	2 ounces	135	5
Chicken, thighs & drumsticks	2 ounces	147	9
Chicken Nuggets	6 nuggets	355	23
Eggs, frozen	2 ounces	85	6
Egg Mix	2 ounces	320	21
Ground Beef (cooked)	2 ounces	180	12
Ground Beef Patties (cooked)	2 ounces	193	13
Ground Pork (cooked)	2 ounces	188	14
Lima Beans	1/2 cup	122	1
Mozzarella Cheese, part skim	2 ounces	160	10
Peanut Butter	4 Tbs.	380	33
Peanuts	2 ounces	330	28
Pork, canned	2 ounces	138	9
Red Beans	1/2 cup	108	0
Salmon, canned	2 ounces	80	2
Split Peas and Lentils	1/2 cup	116	0
Tuna, canned in water	2 ounces	72	1
Turkey, whole frozen	2 ounces	120	6
Turkey, ground	2 ounces	130	8
Turkey Roast	2 ounces	88	3
Walnuts	2 ounces	374	35
Vegetarian Beans	1/2 cup	152	1
White Beans	1/2 cup	106	0

VEGETABLES

One cup raw or 1/2 cup cooked of the following vegetables contains 25 calories and 0 grams of fat.

Beans (green, wax, Italian)
Bean sprouts
Beets
Broccoli
Brussels sprouts
Cabbage
Carrots
Cauliflower
Celery
Cucumber
Eggplant
Greens (collard, mustard, salad, turnip)
Leeks
Mushrooms
Okra
Onions
Pea Pods
Peppers (green)
Pumpkin
Summer squash
Spinach
Tomato (one large)
Turnips
Water chestnuts
Zucchini

The following vegetables contain 80 calories and 0 grams of fat

Beans, baked	1/4 cup	Potato, baked	1 small
Corn	1/2 cup	Squash, winter	1 cup
Lima beans	1/2 cup	Sweet potato,baked	1/2 small
Peas, green	1/2 cup	Sweet potato,cnd.	1/2 cup

Other Commonly Used Vegetable Items

	Serving	Cal.	Fat
Potatoes, french fries, frozen	1/4 cup	75	3
Potatoes, rounds, frozen	1/4 cup	65	3
Instant mashed potatoes	1/4 cup	60	3

FRUITS

The following fruits contain 60 calories and 0 grams of fat.

Apple, 1 small (2" across)	1 each
Apples (dried)	4 rings
Applesauce (unsweetened)	1/2 cup
Applesauce (sweetened)	1/3 cup
Apricots (medium, raw)	4 each
Apricots (canned)*	1/3 cup
Apricots (dried)	7 halves
Banana (9" long)	1/2 banana
Blackberries (raw)	3/4 cup
Blueberries (frozen)	3/4 cup
Cantaloupe (5" across)	1/3 melon
Cantaloupe	1 cup
Cherries (large, raw)	12 cherries
Cherries (canned)	1/2 cup
Cherries (frozen with sugar)	1/4 cup
Dates (dried)	2 1/1 medium
Figs (raw 2" across)	2 figs
Fig nuggets (dried)	2 Tbs.
Fruit cocktail (canned)*	1/2 cup
Grapefruit (medium)	1/2 grapefruit
Grapefruit sections	3/4 cup
Grapes (small)	15 each
Honeydew melon (medium)	1/8 melon
Honeydew melon (cubes)	1 cup
Kiwi (large)	1 each
Mandarin oranges	3/4 cup
Mango (small)	1/2 mango
Nectarine (2 1/2" across)	1 each
Orange (2 1/2" across)	1 each
Papaya	1 cup
Peach (2 3/4" across)	1 each
Peach, sliced	3/4 cup
Peaches (canned)*	1/2 cup, 2 halves
Pear	1/2 large, 1 small
Pears (canned)*	1/2 cup, 2 halves
Persimmon (medium)	2 each
Pineapple (raw)	3/4 cup
Pineapple (canned)*	1/3 cup
Plum (2" across)	2 each
Plums, purple (canned)*	1/3 cup
Pomegranate	1/2 pomegranate
Prunes (cooked)	1/4 cup
Raisins	2 Tbs.
Raspberries (raw)	1 cup
Strawberries (raw, whole)	1 1/4 cup
Tangerine 92 1/2 " across)	2 each
Watermelon (cubes)	1 1/4 cup

*Canned fruit is packed in light syrup or in unsweetened fruit juice.

FRUIT JUICE

The following fruit juices contain 60 calories and 0 grams of fat.

Apple juice	1/2 cup
Cranberry juice cocktail	1/3 cup
Grape juice	1/2 cup
Grapefruit juice	1/2 cup
Orange juice	1/2 cup
Pineapple juice	1/2 cup
Prune juice	1/3 cup

MILK PRODUCTS

	Serving Size	Cal.	Fat Gms.
Skim milk	1 cup	90	0
1% milk	1 cup	105	2
2% milk	1 cup	120	5
1% chocolate milk	1 cup	160	3
Whole milk	1 cup	160	8
Plain nonfat yogurt*	1 cup	130	0
Plain lowfat yogurt*	1 cup	145	4
Fruit flavored lowfat yogurt	1 cup	225	3
Fruit flavored whole milk yogurt	1 cup	240	7
Ice milk	1/2 cup	90	3
Ice cream	1/2 cup	135	7
Frozen yogurt	1/2 cup	130	4
Frozen lowfat yogurt	1/2 cup	110	2

*contains nonfat dry milk solids

BREAD AND BREAD ALTERNATES

The following bread and bread alternates contain 80 calories and 1 gram of fat.

Bagel	1/2	English muffin	1/2
Bread, pumpernickel	1 slice	Hamburg roll	1/2
Bread, rye	1 slice	Hot dog roll	1/2
Bread, white	1 slice	Pita Bread (6"loaf)	1/2
Bread, wheat	1 slice	Roll, small plain	1 each
Cereal, cooked	1/2 cup	Pasta (cooked)	1/2 cup
Cereal, puffed	1 1/2 cup	Rice (cooked)	1/3 cup
Cereal, ready to eat*	3/4 cup	Tortilla (6" across)	1 each

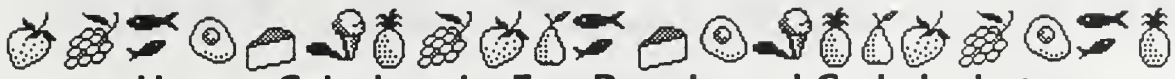
*unsweetened cereal

ADDITIONS TO FOOD

	Serving Size	Calories	Gms. Fat
Butter	1 tsp.	35	4
Cream cheese	1 Tbs.	50	5
Jelly	1 tsp.	17	0
Ketchup	1 Tbs.	16	0
Margarine	1 tsp.	35	4
Mayonnaise	1 Tbs.	11	1
Mustard	1 tsp.	5	0
Oil, vegetable	1 Tbs.	120	14
Salad dressing, mayonnaise type	1 Tbs.	60	5
Salad dressing, oil varieties	1 Tbs.	70	7
Sour cream	1 Tbs.	26	3

SNACK ITEMS

Corn chips	1 oz.	150	9
Popcorn (no added fat)	1 cup	55	1
Potato chips	10 each	115	8
Potato chips	1 oz.	150	10
Potato sticks	1 oz.	150	10
Pretzels	1 oz.	110	1
Tortilla chips	1 oz.	145	7



How to Calculate the Fat, Protein, and Carbohydrate Content of School Lunches

Fat = 30% of Total Calories

of calories in meal x 0.3 = # of calories that should come from fats

If the average school lunch has 715 calories, then:
715 x 0.3 = 215 calories should come from fat

There are 9 calories in 1 gram of fat, so

$$\frac{\text{215 calories of fat}}{\text{9 calories per gram of fat}} = \text{24 grams of fat}$$

Protein = 15% of Total Calories

of calories in meal x 0.15 = # of calories that should come from protein

If the average school lunch has 715 calories, then:
715 x 0.15 = 107 calories should come from protein

There are 4 calories in one gram of protein, so

$$\frac{\text{107 calories of protein}}{\text{4 calories per gram of protein}} = \text{27 grams of protein}$$

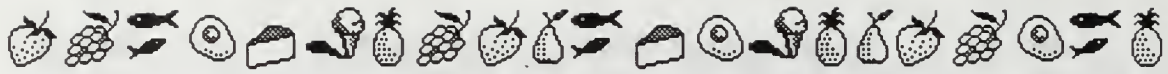
Carbohydrate = 55% of Total Calories

of calories in meal x 0.55 = # of calories that should come from carbohydrates

If the average school lunch has 715 calories, then:
715 x 0.55 = 393 calories fron complex carbohydrates

There are 4 calories in 1 gram of carbohydrate, so

$$\frac{\text{393 calories of carbohydrates}}{\text{4 calories per gram of carbohydrate}} = \text{98 grams of carbohydrates}$$



GLOSSARY

To refresh your memory!

Carbohydrate Carbohydrates are used in the body to supply energy. Carbohydrates are either simple or complex.

Some examples of simple carbohydrates are honey and sugar. Simple carbohydrates supply energy (calories) but they do not contain vitamins, minerals, or fiber.

Complex carbohydrates are found in fruit, vegetables, bread, potatoes, rice cereals and pasta. Often, foods that contain complex carbohydrates provide many vitamins and minerals, and contain fiber.

Cholesterol Cholesterol is a soft waxy material found in the blood. A high level of cholesterol in the blood is a risk factor for coronary heart disease.

Cholesterol is only found in food sources of animal origin such as meat, egg yolk, and butter.

Fat Fats are substances that cannot be dissolved in water but can be dissolved in other things like fingernail polish (acetone) or paint thinner (turpentine). Fat is the source of stored energy for the body. An ounce of fat contains twice as many calories as an ounce of protein or carbohydrate.

Dietary sources of fat include meats, poultry, fish, eggs, dairy products, nuts, seeds, and cooking fats and oils.

Monounsaturated fats Monounsaturated fats are liquid or semi-solid and are found mostly in foods of plant origin. They do not contribute to atherosclerosis and tend to lower blood cholesterol levels.

Polyunsaturated fats Polyunsaturated fats are usually liquid oils of plant origin. They lower the level of cholesterol in the blood.

Saturated fats Saturated fats are usually solid at room temperature. They are found mostly in animal foods. Some vegetable oils like coconut, palm kernel, and palm oil contain saturated fat. They raise blood cholesterol levels.

Fiber Dietary fiber, which is often called roughage, is the part of the plant foods that our systems can't digest. Roughage is good because it adds bulk to our diet which helps stimulate the movement of food through the large intestine and out of the body. Many medical studies link a diet low in fiber to diseases such as cardiovascular disease, colon and rectal cancer, and diverticulosis.

Foods high in fiber include unrefined cereals like oat bran and whole wheat; vegetables like peas, beans, and potatoes; and fruits like strawberries and apples.

Protein Proteins are very important food materials because they repair and build muscles and other tissues. The body needs protein to repair and grow cells, tissues, and organs. Children especially need proteins for growth.

Lean meat, fish, eggs, milk, cheese, beans, peas, and nuts are good sources of protein.

Sodium Sodium is a mineral that is necessary for good health. Table salt is made of sodium and chloride. Sodium and water work together to keep a proper balance of fluid in the body. A certain amount of salt maintains this balance. Too much salt upsets this balance.

Foods such as cold cuts, pickles, canned soups, macaroni and cheese in a box, and other processed foods are high in sodium.